

Description: 868MHz Monopole SMD
Antenna

Series: Ceramic Chip Antenna

PART NUMBER: W3016

Features:

- 863-870MHz
- Monopole radiator
- Gain -3dBi
- Size 10 x 3.2 x 4 mm
- Optimized for small PCB
- Easy tuning with matching circuit

Applications:

- ISM 868MHz radios
- Sigfox
- LoRa
- IoT, M2M
- Sensors, monitors



All dimensions are in mm

Issue: 1918

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

For more information:

Pulse Worldwide Headquarters
15255 Innovation Drive #100
San Diego, CA 92128
USA
Tel: 1-858-674-8100

Pulse/Larsen Antennas
18110 SE 34th St Bldg 2 Suite 250
Vancouver, WA 98683
USA
Tel: 1-360-944-7551

Europe Headquarters
Pulse GmbH & Co, KG
Zeppelinstrasse 15
Herrenberg, Germany
Tel: 49 7032 7806 0

Pulse (Suzhou) Wireless Products Co, Inc.
99 Huo Ju Road(#29 Bldg, 4th Phase
Suzhou New District
Jiangsu Province, Suzhou 215009 PR China
Tel: 86 512 6807 9998



Series: Ceramic Chip Antenna**Description: 868MHz Monopole SMD
Antenna****PART NUMBER: W3016****ELECTRICAL SPECIFICATIONS**

Antenna Type	Ceramic HTC
Frequency	863-870 MHz
Nominal Impedance	50 Ω
Return Loss	<-15 dB
Radiation Pattern	Omn
Gain	>-3 dBi
Efficiency	>20%
Polarization	Vertical
Power Withstanding	2 W

MECHANICAL SPECIFICATIONS

Overall Length	10x3.2x4mm
Weight	0.6g
Antenna Color / Material	Ceramic Grey / Silver
Moisture Sensitivity Level	MSL1

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-40 to +85 ° C
Storage Temperature	-40 to +85°
RoHS Compliant	Yes

Above electrical specification tested on 25x25mm sized PCB

Issue: 1918

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

CONFIDENTIAL AND PROPRIETARY INFORMATION

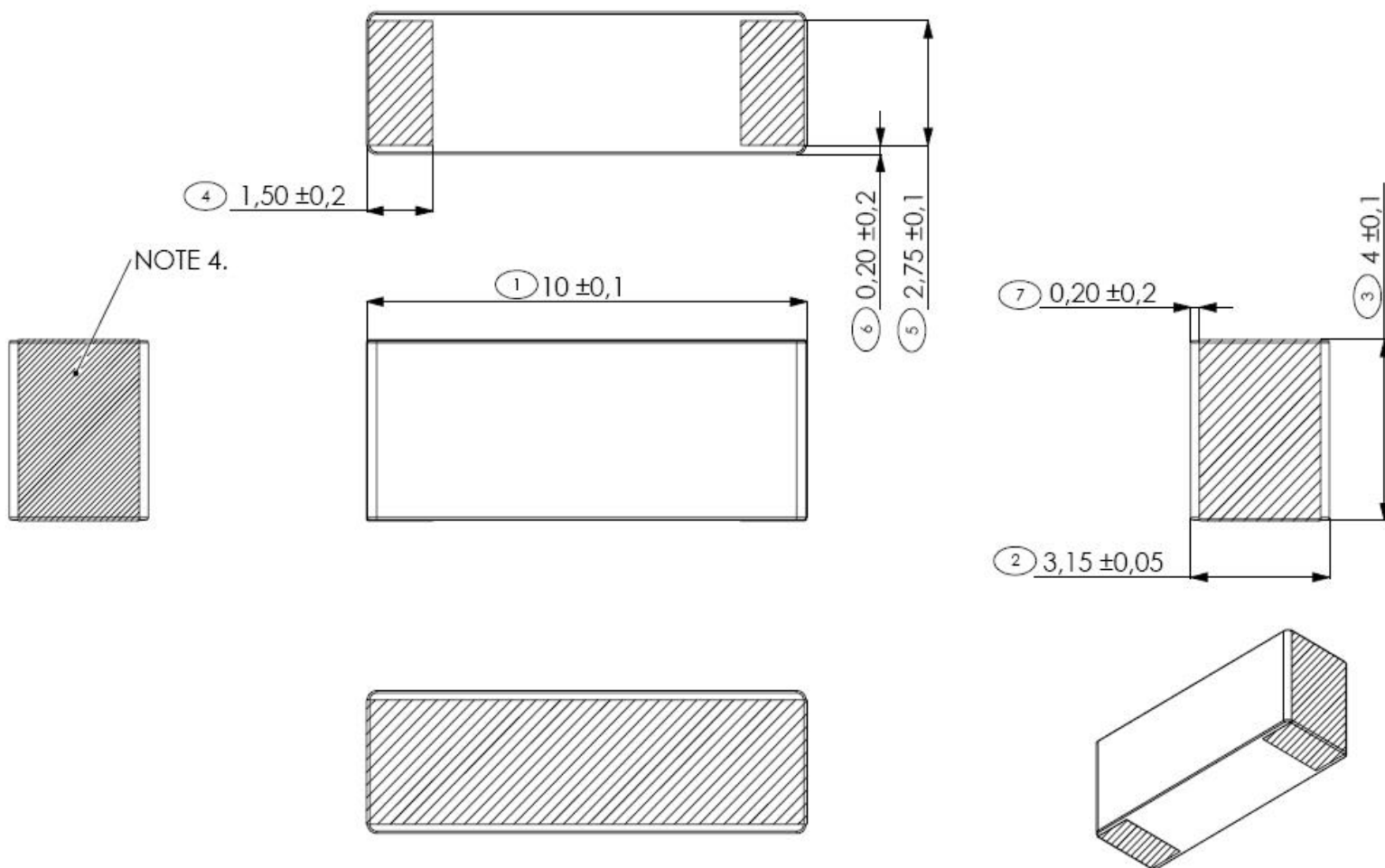
This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

Description: 868MHz Monopole SMD
Antenna

Series: Ceramic Chip Antenna

PART NUMBER: W3016

MECHANICAL DRAWING



c	Terminal Name	Terminal Dimensions
1	Feed	1.5 x 2.75 mm
2	Support pad	1.5 x 2.75 mm
Antenna is symmetrical and orientation on footprint can be rotated 180 degrees without change in performance		

Issue: 1918

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

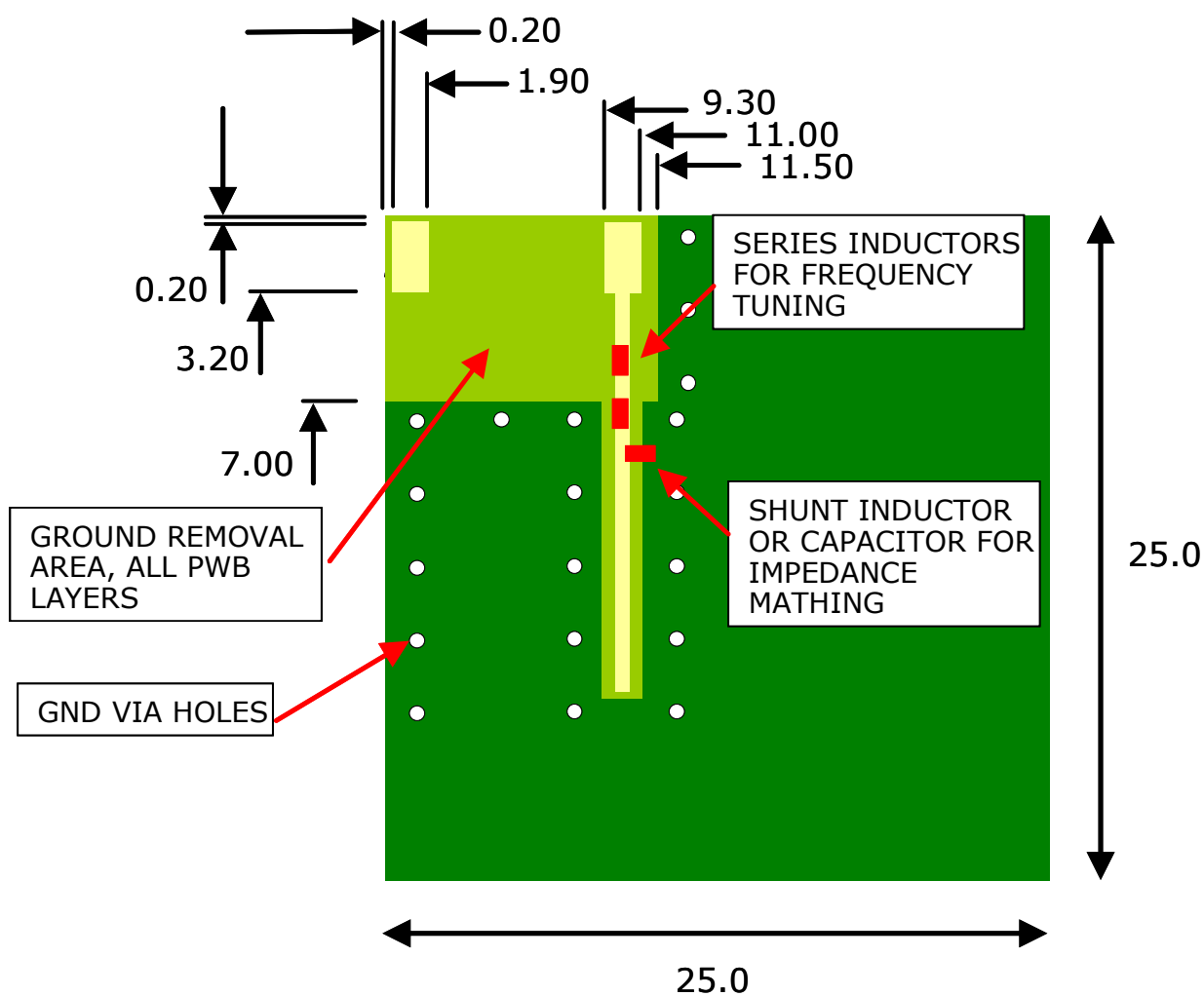
Description: 868MHz Monopole SMD Antenna

Series: Ceramic Chip Antenna

PART NUMBER: W3016

MECHANICAL DRAWING

Test Board Layout



Issue: 1918

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

Series: Ceramic Chip Antenna

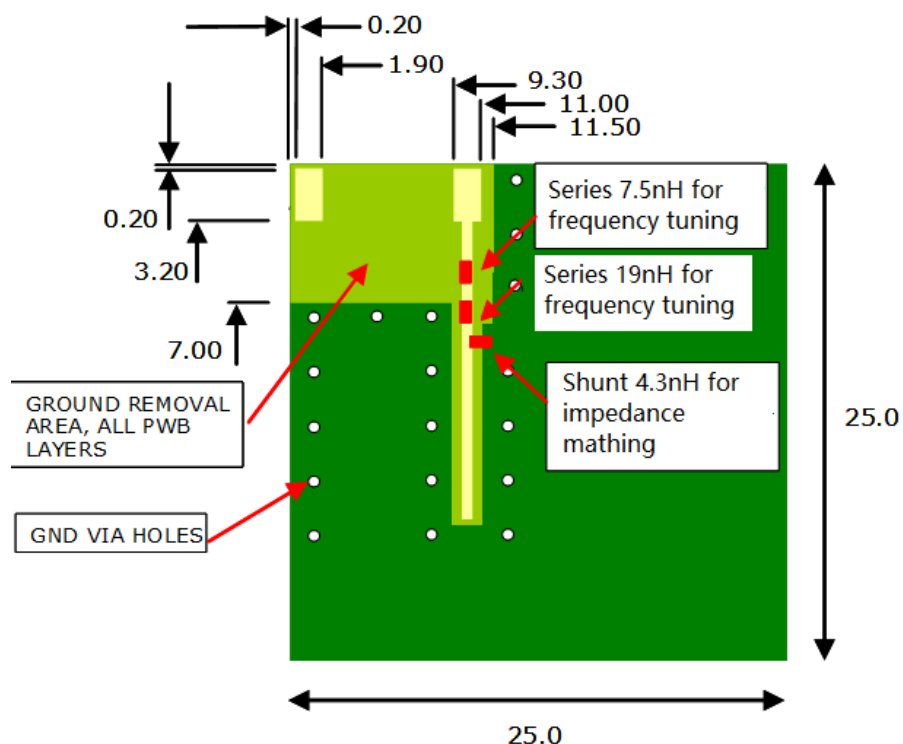
Description: 868MHz Monopole SMD Antenna

PART NUMBER: W3016

TEST SETUP



Test on Pulse test board with ferrite bead test cable.



Matching circuit for reference

Issue: 1918

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

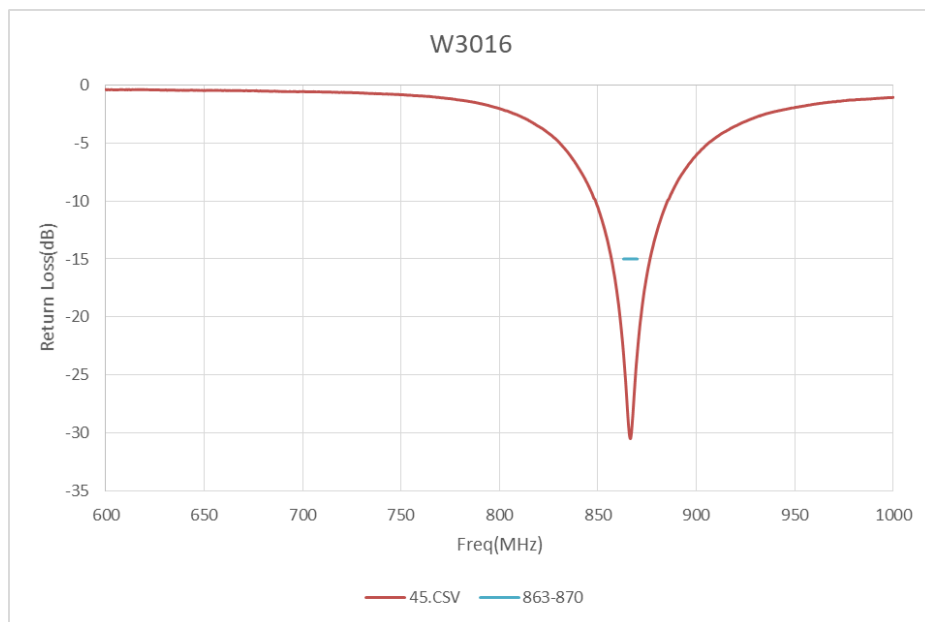
Description: 868MHz Monopole SMD Antenna

Series: Ceramic Chip Antenna

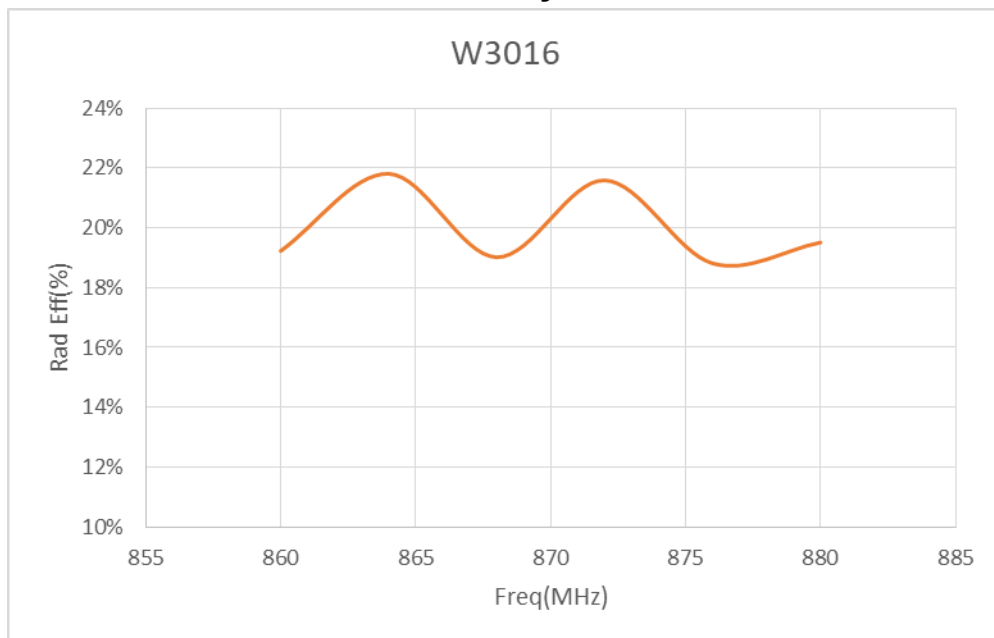
PART NUMBER: W3016

CHARTS

Return loss on Test board



Radiation Efficiency on Test board



Issue: 1918

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

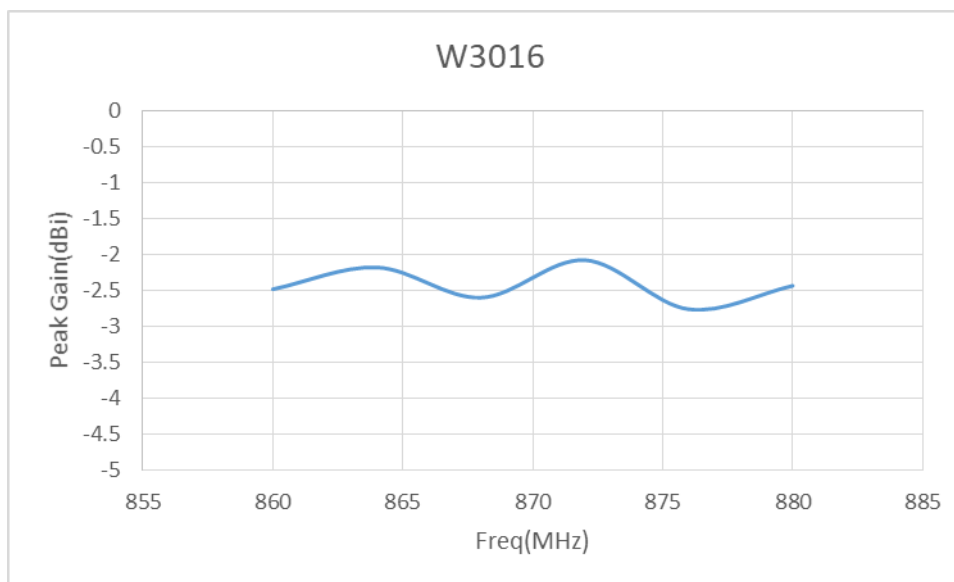
Description: 868MHz Monopole SMD Antenna

Series: Ceramic Chip Antenna

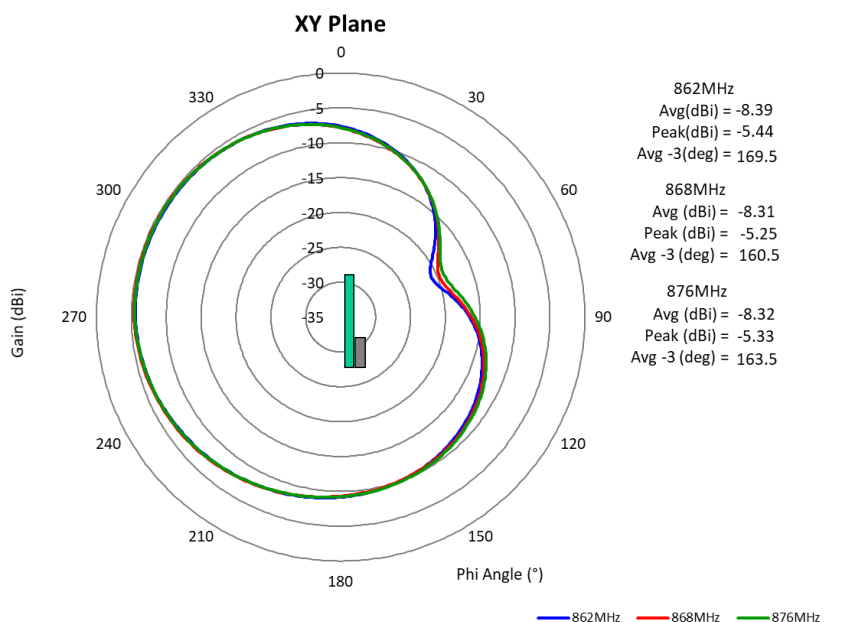
PART NUMBER: W3016

CHARTS

Peak Gain on Test board



Radiation pattern at XY plane



Issue: 1918

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

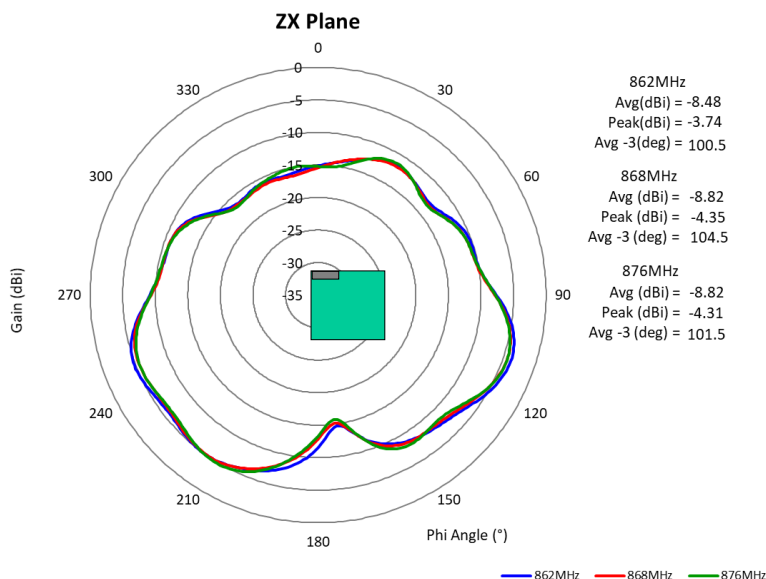
Series: Ceramic Chip Antenna

Description: 868MHz Monopole SMD Antenna

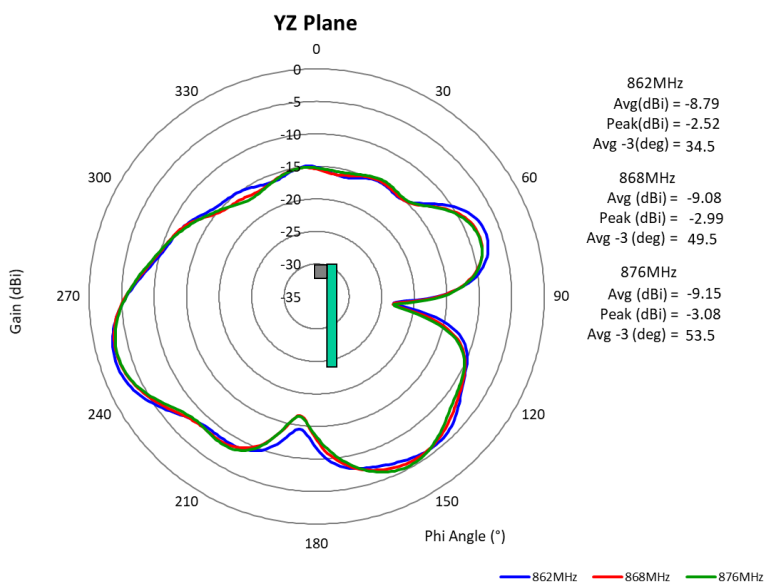
PART NUMBER: W3016

CHARTS

Radiation pattern at ZX plane



Radiation pattern at YZ plane



Issue: 1918

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.

Series: Ceramic Chip Antenna

Description: 868MHz Monopole SMD Antenna

PART NUMBER: W3016

PACKAGING

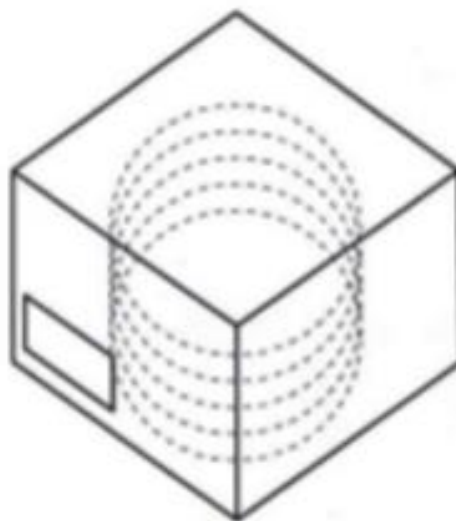
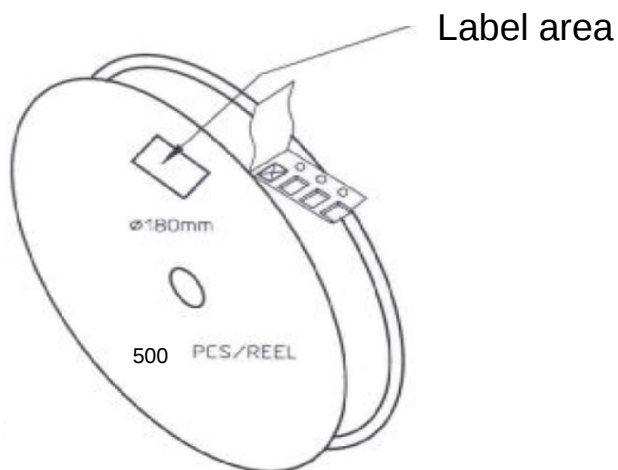
500pcs antennas per 7" reel

3pcs reel per inner box

2pcs inner box per outer box

Total 3000pcs antenna per package box

Package box: 390mm*215mm*165mm



According to MSL1 packing requirement, MBB-Moisture Barrel Bag, Desiccant, HIC-Humidity Indicator Card, MSID Label, Caution Label are required.

Issue: 1918

In the effort to improve our products, we reserve the right to make changes judged to be necessary.

CONFIDENTIAL AND PROPRIETARY INFORMATION

This document contains confidential and proprietary information of Pulse Electronics, Inc. (Pulse) and is protected by copyright, trade secret and other state and federal laws. Its receipt or possession does not convey any rights to reproduce, disclose its contents, or to manufacture, use or sell anything it may describe. Reproduction, disclosure or use without specific written authorization of Pulse is strictly forbidden.